IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1-4, 11-14, 24-25, and 28-30 in accordance with the following:

1. (Currently Amended) A system to estimate a color temperature of a compressed video image and change the color temperature of the compressed video image, the system comprising:

a direct current (DC) video image extraction section to extract DC coefficients of each of a plurality of discrete ~~cosine~~ transformation ~~(DCT)~~ blocks from the compressed video image, each of the DC coefficients representing an average value of pixel values of each of the respective ~~DCT~~ discrete transformation blocks of ~~the compressed~~ an original video image, define the DC coefficients as ~~average~~ pixel values, and generate a DC video image composed of the ~~average~~ pixel values; and

a color temperature estimation section to estimate a color temperature of the compressed video image from the color temperature of the DC video image.

2. (Currently Amended) The system of claim 1 further comprising:

a decoder to decode the compressed video image to generate ~~an~~ the original video image; and

a color temperature change unit to determine the estimated color temperature of the compressed video image or a color temperature of the decoded original video image as an application color temperature according to whether the compressed video image is a moving video image, and change the color temperature of the decoded original video image in accordance with the application color temperature and a color temperature preferred by a user.

3. (Currently Amended) The system of claim 1, wherein the DC coefficients of each of the ~~DCT~~ discrete transformation blocks are obtained by multiplying ~~DCT~~ discrete transformation coefficients with respect to coordinates (0,0) of each of the ~~DCT~~ discrete transformation blocks by a predetermined constant in response to the compressed video image being a still video or an internally coded moving video image.

4. (Currently Amended) The system of claim 1, wherein the DC coefficients of each of the ~~DCT~~ discrete transformation blocks of a current frame are calculated as a sum of terms corresponding to four blocks of a previous frame in response to the compressed video image being an interframe-coded moving video image; and

wherein each of the terms is determined as a product of a ratio of an overlapping area of a ~~DCT~~ discrete transformation block whose DC coefficients of the current frame are to be extracted and ~~DCT~~ discrete transformation blocks of a previous frame to the area of the ~~DCT~~ discrete transformation blocks of the previous frame and DC coefficients of each ~~DCT~~ discrete transformation block of the previous frame.

5. (Previously Presented) The system of claim 2, wherein the color temperature change unit comprises:

an application color temperature determination section to determine the estimated color temperature of the compressed video image or the color temperature of the decoded video image as the application color temperature according to whether the compressed video image is a moving video image; and

a color temperature change section to receive the color temperature preferred by the user and change the color temperature of the decoded video image in accordance with the application color temperature and the color temperature preferred by the user.

6. (Original) The system of claim 5, wherein the application color temperature determination section compares a first color temperature difference between an estimated color temperature of the DC video image of a current frame and an estimated color temperature of the DC video image of a previous frame with a first predetermined critical value in response to the compressed video image being interframe coded; and

determines the application color temperature of the current frame by adding a correction function to the application color temperature of the previous frame.

7. (Previously Presented) The system of claim 5, wherein the application color temperature determination section compares a first color temperature difference between an estimated color temperature of the DC video image of a current frame and an estimated color temperature of the DC video image of a previous frame with a first predetermined critical value in response to the compressed video image being interframe coded;

receives a decoded current frame from the decoder, estimates the color temperature from the decoded current frame, calculates a second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame, and compares the second color temperature difference with a predetermined second critical value in response to the first color temperature difference being larger than the first critical value; and

determines the estimated color temperature of the DC video image of the current frame as the application color temperature of the current frame in response to the second color temperature difference being less than the second critical value.

8. (Previously Presented) The system of claim 5, wherein the application color temperature determination section compares a first color temperature difference between an estimated color temperature of the DC video image of a current frame and an estimated color temperature of the DC video image of a previous frame with a first predetermined critical value in response to the compressed video image being interframe coded;

receives a decoded current frame from the decoder, estimates the color temperature from the decoded current frame, calculates a second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame, and compares the second color temperature difference with a predetermined second critical value in response to the first color temperature difference being larger than the first critical value; and

determines the estimated color temperature of the DC video image of the decoded current frame as the application color temperature of the current frame in response to the second color temperature difference being larger than the second critical value.

9. (Original) The system of claim 6, wherein the first color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

10. (Original) The system of claim 6, wherein the first and second critical values are approximately 200°K.

11. (Currently Amended) A method of estimating a color temperature of a compressed video image and changing the color temperature of the compressed video image, the method comprising:

extracting direct current (DC) coefficients of each of a plurality of discrete ~~cosine~~ transformation ~~(DCT)~~ blocks from the compressed video image, each of the DC coefficients representing an average value of pixel values of each of the respective ~~DCT~~ discrete transformation blocks of ~~the compressed~~ an original video image, defining the DC coefficients as ~~average~~ pixel values, and generating a DC video image composed of the ~~average~~ pixel values; and

estimating a color temperature of the compressed video image from the color temperature of the DC video image.

12. (Currently Amended) The method of claim 11 further comprising:

decoding the compressed video image to generate ~~an~~ the original video image; and

determining the estimated color temperature of the compressed video image or a color temperature of the decoded original video image as an application color temperature according to whether the compressed video image is a moving video image, and changing the color temperature of the decoded original video image in accordance with the application color temperature and a color temperature preferred by a user.

13. (Currently Amended) The method of claim 11, wherein the extracting and defining the DC coefficients and generating the DC video image comprises:

obtaining the DC coefficients of each of the ~~DCT~~ discrete transformation blocks by multiplying ~~DCT~~ discrete transformation coefficients with respect to coordinates (0,0) of each of the ~~DCT~~ discrete transformation blocks by a predetermined constant in response to the compressed video image being a still video image or an internally coded moving video image;

defining the DC coefficients of each of the ~~DCT~~ discrete transformation blocks as the ~~average~~ pixel values; and

generating the DC video image composed of the ~~average~~ pixel values.

14. (Currently Amended) The method of claim 11, wherein the extracting and defining the DC coefficients and generating the DC video image comprises;

calculating the DC coefficients of each of the ~~DCT~~ discrete transformation blocks of a current frame as a sum of terms corresponding to four blocks of a previous frame in response to the compressed video image being an interframe coded moving video image, wherein each of the terms is determined as a product of a ratio of an overlapping area of a ~~DCT~~ discrete transformation block whose DC coefficients of the current frame are to be extracted and ~~DCT~~ discrete transformation blocks of a previous frame to the area of the ~~DCT~~ discrete transformation blocks of the previous frame and DC coefficients of each ~~DCT~~ discrete transformation block of the previous frame;

defining the DC coefficients as the ~~average~~ pixel value; and

generating the DC video image composed of the ~~average~~ pixel values.

15. (Previously Presented) The method of claim 12, wherein the determining the estimated color temperature of the compressed video image or the color temperature of the decoded original video image and changing the color temperature of the decoded video image comprises:

determining the estimated color temperature of the compressed video image or the color temperature of the decoded original video image as the application color temperature according to whether the compressed video image is a moving video image; and

receiving the color temperature preferred by the user and changing the color temperature of the decoded original video image in accordance with the application color temperature and the color temperature preferred by the user.

16. (Original) The method of claim 15, wherein the determining the estimated color temperature of the compressed video image or the color temperature of the decoded original video image as the application color temperature comprises:

comparing a first color temperature difference between an estimated color temperature of the DC video image of a current frame and an estimated color temperature of the DC video image of a previous frame with a first predetermined critical value in response to the compressed video image being interframe coded and

determining the application color temperature of the current frame by adding a correction function to the application color temperature of the previous frame in response to the first color temperature difference being smaller than the first critical value.

17. (Original) The method of claim 15, wherein the determining the estimated color temperature of the compressed video image or the color temperature of the decoded original video image as the application color temperature comprises:

comparing a first color temperature difference between an estimated color temperature of the DC video image of a current frame and an estimated color temperature of the DC video image of a previous frame with a first predetermined critical value in response to the compressed video image being interframe coded;

receiving a decoded current frame from the decoder, estimating the color temperature from the decoded current frame, calculating a second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame, and comparing the second color temperature difference with a predetermined second critical value in response to the first color temperature difference being larger than the first critical value and

determining the estimated color temperature of the DC video image of the current frame as the application color temperature of the current frame in response to the second color temperature difference being less than the second critical value.

18. (Original) The method of claim 15, wherein the determining the estimated color temperature of the compressed video image or the color temperature of the decoded original video image as the application color temperature comprises:

comparing a first color temperature difference between an estimated color temperature of the DC video image of a decoded current frame and an estimated color temperature of the DC video image of the previous frame with a first predetermined critical value in response to the compressed video image being interframe coded;

receiving the decoded current frame from the decoder, estimating the color temperature from the decoded current frame, calculating a second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame, and comparing the second color temperature difference with a predetermined second critical value in response to the first color temperature difference being larger than the first critical value and

determining the estimated color temperature of the DC video image of the decoded current frame as the application color temperature of the current frame in response to the second color temperature difference being larger than the second critical value.

19. (Original) The method of claim 16, wherein the first color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

20. (Original) The method of claim 16, wherein the first and second critical values are approximately to 200°K.

21. (Original) A computer readable recording medium having recorded thereon the method of estimating and changing a color temperature of a compressed video image of claim 15.

22. (Original) The system of claim 7, wherein the first color temperature difference between the estimated color temperature of the DC video image of the decoded current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

23. (Previously Presented) The system of claim 8, wherein the first color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

24. (Currently Amended) The system of claim 7, wherein the first and second critical values are approximately 200°K.

25. (Currently Amended) The system of claim 8, wherein the first and second critical values are approximately 200°K.

26. (Original) The method of claim 17, wherein the first color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

27. (Original) The method of claim 18, wherein the first color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the DC video image of the previous frame and the second color temperature difference between the estimated color temperature of the DC video image of the current frame and the estimated color temperature of the decoded current frame are differences between values obtained by multiplying inverse numbers of each color temperature by a predetermined coefficient.

28. (Currently Amended) The method of claim 17, wherein the first and second critical values are approximately 200°K.

29. (Currently Amended) The method of claim 18, wherein the first and second critical values are approximately 200°K.

30. (Currently Amended) A computer readable recording medium having recorded thereon the method of estimating and changing a color temperature of a compressed video image of claim ~~12~~11.

31. (Original) A computer readable recording medium having recorded thereon the method of estimating and changing a color temperature of a compressed video image of claim 15.